TITOVA, V.I., kand.tekhn.nauk

Determining vertical movements of an elastic foundation of finite thickness and ascertaining the contact pressure at the base of a rigid installation. Trudy Lab.gidr.sooruzh. VODGEO no.4:89-123 '63. (MIRA 17:6)

TITOVA, V.I.; VINOGRADOVA, G.M., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Horizontal displacement of hydraulic water-pressure structures on nonrocky foundations] Gorizontal'noe peremeshchenie vodopodpornykh gidrotekhnicheskikh sooruzhenii na neskal'nykh osnovaniiakh. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1960. 119 p. (MIRA 13:10)
(Hydraulic structures)

NICHIPOROVICH, A.A., prof., doktor tekhn. nauk; ISTOMINA, V.S., doktor tekhn. nauk; ~~TITOVA, V.I.,~~ kand. tekhn. nauk; BORSHCHEVSKAYA, N.M., red.izd-va; GILENSON, P.G., tekhn. red.

[Instructions for planning the underground contour of hydraulic structures not on rock foundations, and subject to water pressure] Ukazaniia po proektirovaniiu podzemnogo kontura vodopodpornykh sooruzhenii na neskal'nykh osnovaniiakh. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1960. 98 p. (MIRA 14:6)

(Hydraulic structures) (Seepage)

TITOV, V. I.

29011 Vozvedenie plotin s primenenim yacheistykh konstruktsiy iz metallicheskogo shpunta. (S primech red.) Gidrotekhn. stroit-vo, 1949, No 9, S. 3-5

SO: Letopsi' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

TITOVA, V.I.

Determining the deformation of a rock-earth dam with a core.
Trudy VODGEO no. 11:52-62 '65 (MIRA 19:1)

TITOVA, V. I.

USSR/Engineering - Dams Sep 49
Hydroelectric Plants

"Erection of Dams Using Cellular Construction Composed of Metal Channels," I. V. Fedorov, Cand Tech Sci, V. I. Titova, Engr, 3 pp

"Gidrotekh Stroi" No 9

Examines two types of dams using cellular construction. Use of cellular construction and metal channels in hydrotechnical construction shortens construction time, increases the temp of operations, and results in 10-25% saving in comparison with available types.

PA 1/50T33

TITOVA, V. I.

"Certain Problems of Designing Cellular Constructions." Sub 16 Feb 51, All-Union Sci Res Inst of Water Supply, Sewerage, Hydraulic Structures and Engineering Hydrogeology (VODGEO)

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

TITOVA, V. I.

USSR/Engineering - Circular Structures Mar 51

"Pressure of Loose Materials on the Circular Wall in a Horizontal Plane," V. I. Titova, Engr

"Gidrotekh Stroi" No 3, pp 35-38

Deduces formulas for detg the horizontal pressure of filling materials against surrounding walls of cellular constructions, silos and other similar structures with higher precision than it is usually done by formulas for straight-line walls and Yansen's formula. These formulas may also be used for detn of pressure on curved interconnecting walls and piles of hydraulic structures.

197748

BURMISTROV, P.A., starshiy nauchnyy sotrudnik; TITOVA, V.I., mladshiy
nauchnyy sotrudnik

Potentials for increasing the profitableness of poultry
combines. Trudy TSNIIPPa 9:3-7 '62. (MIRA 16:6)

(Poultry plants--Management)

TITOVA, V.L.; POTAPOVA, Ye.P.

Mechanism of immunity in tularemia. Report No.1: Immunity following vaccination with an attenuated strain in conjunction with the use of antibacterial doses of streptomycin. Izv. Irk.gos.nauch.-issl.protivochum.inst. 14:60-65 '57.

(MIRA 13:7)

(TULAREMIA) (IMMUNITY) (STREPTOMYCIN)

TITOVA, V.L.; YAROMYUK, G.A.; AZARGINOVA, F.S.; VYBOROVA, A.Ye.

Obtaining cholera monovaccine resistant to lysis. Izv.Irk.gos.
nauch.-issl.protivochum.inst. 14:79-81 '57. (MIRA 13:7)
(CHOLERA, ASIATIC) (VACCINES)

TITOVA, V.M.

TITOVA, V.M.

Centennial of the birth of Heinrich Rudolf Hertz. Vop. ist. est. i tekh. no.4:211-212 '57. (MIRA 11:1)
(Hertz, Heinrich Rudolf, 1857-1894)

Country : USSR
Category : Microbiology. Microbes Pathogenic For Man and Animals. Vibrios.
Abs. Jour : Ref Zhur-Biol., No 23, 1958, No 103839

Author : Titova, V.L.; Yaromyuk G.A.; Azarginova, F.S.; Vybora A.Ye.
Institut. : Irkutsk Scientific Research Plague Institute
Title : The Problem of Obtaining a Cholera MonoVaccine Resistant to Lysis

Orig Pub. : Izv. Irkutskogo n.-i. protivochumn. in-ta Sibiri i Dal'n. Vost., 1957, 14, 79-81
Abstract : No abstract.

Card: 1/1

F-50

Титова, В.М.

TITOVA, V.M.

F.Sh. Taylor; obituary. Vop. ist. est. i tekh. no.4:217 '57. (MIRA 11:1)
(Taylor, Frank Sherwood, 1897-1956)

Titova V.M.

SOTIN, B.S.; TITOVA, V.M.

Development of radiobroadcasting in the U.S.S.R. Vop.ist.est. i tekh. no.5:96-109 '57. (MIRA 11:2)
(Radiobroadcasting)

TITOVA V.M.

SOTIN, B.S.; TITOVA, V.M.

Development of radiotelegraphic communications in Russia (before 1917). Trudy Inst. ist. est. i tekh. 11:139-197 '57. (MIRA 11:1)
(Radiotelegraph--History)

KUKHARENKO, A.A.; TITOVA, V.M.

Recent data on the solution of diamond crystals. Uch.zap.
LGU no.215:108-134 '57. (MIRA 12:5)
(Diamonds)

SOV/26-59-3-13/47

AUTHOR: Titova, V.M. (Moscow)

TITLE: A Prominent Indian Naturalist - On the 100th Anniversary of Jagadis Chandra Bose's Birthday

PERIODICAL: Priroda, 1959, Nr 3, pp 81-83 (USSR)

ABSTRACT: The author describes the life and work of the great Indian physicist and plant physiologist Jagadis Chandra Bose. There is 1 photograph.

ASSOCIATION: Institut istorii yestestvoznaniya i tekhniki (Historical Institute of Natural Science and Engineering).

Card 1/1

S/070/62/007/006/013/020
E132/E435

AUTHORS: Titova, V.M., Futergendler, S.I.

TITLE: The orientation of graphite, formed on diamond as a result of its allotropic transformation on heating

PERIODICAL: Kristallografiya, v.7, no.6, 1962, 926-929

TEXT: Small octahedral crystals of diamond, shown by Laue photographs to be of type I, were heated to 3000°C at 100000 atm pressure for 5 minutes, upon which graphitization took place. 2000°C proved insufficiently hot. The 0002 maximum of scattering from the graphite coincided with the [111] direction of the diamond. The graphite was found to be a mixture of α- and β-graphite as in natural graphite. The extra anomalous reflexions produced by the diamond were unchanged by the treatment. Diffuse streaks in the [111] direction were observed as are found after neutron bombardment. The graphite layer was removed by etching at 250°C in a silicate melt and the diamond was found to have lost 14% of its weight and to have become yellow. The surfaces of the faces had become matt and showed triangular pits. These are often encountered in natural diamonds in anti-parallel

Card 1/2

The orientation of graphite ...

S/070/62/007/006/013/020
E132/E435

orientation as here. Normally, parallel oriented pits are produced by etching at 500 to 1000°C in various media. There are 6 figures and 1 table.

ASSOCIATION: Tsentral'naya ekspeditsiya VSYeGYeI
(Central Expedition VSYeGYeI)

SUBMITTED: February 12, 1962

Card 2/2

MOKIYEVSKIY, V. A.; TITOVA, V. M.; BARTOSHINSKIY, Z. V.

Manifestation of plastic deformation in a diamond and some problems connected with the plasticity of crystals. Zap. Vses. min. ob-va 91 no.4:381-393 '62. (MIRA 15:10)

(Diamonds) (Dislocations in crystals)

TITOVA, V.M.

Development of early technological means of communication. Trudy Inst. ist. est. i tekh. 44:179-212 '62.

(MIRA 18:3)

TITOVA, V.M.

F. Shchegorin's optical telegraph. Vop. ist. est. i tekh. no.13: 131-132 '62. (MIRA 16:5)

(Signals and signaling)

TITOVA, V. M.

New data on the etching of diamonds. Zap. Vses. min. ob-va
91 no.3:334-337 '62. (MIRA 15:10)

1. TSentral'naya ekspeditsiya Vsesoyuznogo nauchno-issledovatel'skogo geologicheskogo instituta, Leningrad.

(Diamonds)

TITOVA, V.M.; FUTERGENDLER, S.I.

Orientation of graphite generated in a diamond following its allotropic transformation by heating. Kristallografiia 7 no.6:926-929 N-D '62.
(MIRA 16:4)

1. TSentral'naya ekspeditsiya Vsesoyuznogo nauchno-issledovatel'skogo geologicheskogo instituta.
(Diamonds) (Graphite) (X-ray diffraction examination)

BARABOSHKINA, N.K.; VAGRAMYAN, A.T.; TITOVA, V.N.

Feasibility of determining by photometry the adhesion of an electrolytic deposit to the base. Zashch. met. 1 no.2:230-232 Mr-Ap '65. (MIRA 18:6)

1. Institut fizicheskoy khimii AN SSSR.

PERVYAKOVA, L.M.; GOL'DENBERG, A.M.; TITOVA, V.N. (Simferopol')

Use of the PMS small output conveying unit by the Simferopol Factory No.2. Shvein.prom. no.5:30-31 S-O '60. (MIRA 13:12)
(Assembly-line methods) (Simferopol—Clothing industry)

TITOVA, V.N.; VAGRAMYAN, A.T.

Reflecting power and structure of electrolytic copper deposits.
Elektrokhimiia 1 no.8:1011-1015 Ag '65. (MIRA 18:9)

1. Institut fizicheskoy khimii AN SSSR.

L 08110-67 EWP(e)/EWT(m)/EWP(v)/EWP(t)/ETI IJP(c) [illegible]

ACC NR: AP6033076 SOURCE CODE: UR/0032/66/032/010/1223/1226

AUTHOR: Vagramyan, A. T.; Baraboshkina, N. K.; Batrukova, M. G.; Titova, V. N. 44 3

ORG: Institute of Physical Chemistry AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: Photometric method for determining the reflectivity and the adhesion 7 of a deposited metal to the backing

SOURCE: Zavodskaya laboratoriya, v. 32, no. 10, 1966, 1223-1226

TOPIC TAGS: electrolytic deposition, 16 light reflection coefficient, adhesive bonding

ABSTRACT: The article describes a method and apparatus for determining the adhesion of an electrolytic coating to the base directly during the electrolysis process, and also for evaluation of the reflectivity of the coating at the time of its deposition. 15 A schematic diagram of the apparatus is shown in Fig. 1. The electrolytic cell consists of a removable cathode 1 and an anode 2, which are fixed to the body of the instrument. The anode is so located with respect to the cathode that uniform distribution of the flow over the whole surface of the electrode is assured. The electrolyte under investigation is placed in a glass vessel 3, which is placed in a thermostatted jacket 4, connected to an ultrathermostat. The photoelectric unit consists of a light source 6, a system of lenses, and the photoelement 7. The reflectivity and the polarization of a nickel deposit were studied in a solution of $NiSO_4 \cdot 7H_2O$--300 grams/liter;

Card 1/3 UDC: 621.357.1:539.61:535.312

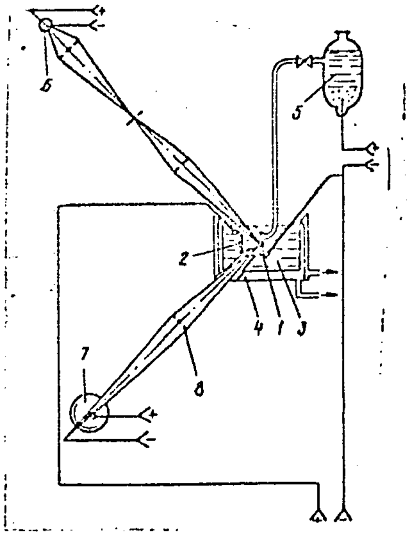

Fig. 1. Schematic diagram of photoelectric instrument

$NiCl_2 \cdot 6H_2O$—60 grams/liter; H_3BO_3—38 grams/liter; pH = 4; D_k = 40 ma/cm^2; t = 25°C. The nickel was deposited on nickel and steel samples with different preliminary treatments of the surface of the metal. The experimental results are shown in graphic

L 08110-67

ACC NR: AP6033076 O

form. The method is said to be applicable for the determination of adhesion at very high current densities. Orig. art. has: 4 figures.

SUB CODE: 20, 07, 11/ ~~20/~~ SUBM DATE: none

Card 3/3 nst

L 7968-66 EWT(m)/EWP(i)/EWP(t)/EWP(b) IJP(c) JD
ACC NR: AP5025079 SOURCE CODE: UR/0364/65/001/010/1212/1217

AUTHOR: Vagramyan, A. T.; Titova, V. N.
44,55 44,55

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii, AN SSSR) 44,55 25 B

TITLE: Study of conditions for obtaining bright copper deposits by anode treatment 44,55 18

SOURCE: Elektrokhimiya, v. 1, no. 10, 1965, 1212-1217

TOPIC TAGS: electroplating, copper, pulse generator, electrolytic cell, light reflection 17

ABSTRACT: The article describes an attempt to produce bright copper deposits by anode treatment with a current pulse in a pyrophosphoric acid electrolyte used for electroplating. The reflecting power of the copper deposit was studied in the electrolysis process with a photometer developed in the Institute of Physical Chemistry of the AN SSSR. The photocurrent characterizing the magnitude of the reflecting power, with the aid of a direct current amplifier, was recorded on a POB-14 loop oscillograph. Simultaneously, in the electrolytic process, measurements were made of the electrode potential, measured with reference to a satur-

Card 1/2

UDC: 621.357.7

L 7968-66

ACC NR: AP5025079

ated calomel electrode. A pulse device was used to produce the current pulse; this made it possible to vary the duration of the impulse over a wide time range. The electroplating and the anode treatment of the coating were carried out in an electrolyte of the following composition: $CuSO_4$, 90 grams/liter; $K_4P_2O_7$, 350 grams/liter; ammonium nitrate, 20 grams/liter; pH, 8.1; temperature, 60 C. A series of experiments was carried out at different current densities to determine the conditions for anode treatment at which a noticeable increase in the reflecting power starts. The observed increase in the reflecting power after treatment with a current pulse beyond the critical point is in all probability connected with the fact that, at large current densities, a supersaturation of the solution occurs. In anode dissolving of the metal there should also be observed a smoothing of the surface of the electrode, if the removal of the metal takes place uniformly over the whole surface of the electrode. It is evident that during the dissolving of metals, a projection will be completely dissolved if the thickness of the dissolving layer is commensurate with the thickness of the projections. Therefore, in this case also, we can expect a smoothing effect. It is possible that both cases occur during the treatment of copper with a current pulse. Orig. art. has: 7 figures.

SUB CODE: GC, MM/ SUBM DATE: 08Feb65/ ORIG REF: 004/ OTH REF: 004

Card2/2

L 2618-66 EWT(m)/EPF(c)/EWP(i)/EWP(t)/EWP(b) JD/WB

ACCESSION NR: AP5011366

UR/0365/65/001/002/0230/0232
620.199.621.351.7

53
50
B

AUTHOR: Baraboshkina, N. K.; 44,55 Vagramyan, A. T.; 44,55 Titova, V. N. 44,55

TITLE: On the possibility of photometric determination of adhesion of electrolytic plating to its base

SOURCE: Zashchita metallov, v. 1, no. 2, 1965, 230-232

TOPIC TAGS: nickel plating, corrosion protection, electrolytic deposition, 44,55,18 adhesion

ABSTRACT: The feasibility of continuous photometric characterization of the adhesion of nickel-plating to a metal base during the electroplating process was examined. After focusing a light beam on an electrode surface subjected to electrolytic nickel-plating the intensity of the reflected light was measured photometrically. The nickel plating reflectivity and polarization were measured in an electrolyte containing: 300 g/l of $NiSO_4 \cdot 7H_2O$, 60 g/l of $NiCl_2 \cdot 6H_2O$, and 38 g/l of H_3BO_3; at pH = 3, with a current density of 40 mA/cm^2, and at 25°C. The nickel platings were deposited on passivated (immersed for 20 sec in a chromic acid-- 250 g/l) or activated (immersed in 5% H_2SO_4) nickel and steel electrodes. The

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L 2618-66

3

ACCESSION NR: AP5011366

change in reflectivity and polarization during the process of nickel-plating of steel samples is shown in fig. 1 of the Enclosure. The electrode surface activity and the strength of adhesion of nickel plating is well characterized in terms of reflectivity decline after the initial current switch-on. The strength of the plating-base adhesion is determined by the photometric method more accurately than by either mechanical or electrochemical methods. It is found that passivation with chromic acid impairs the adhesion strength. Orig. art. has: 3 figures.

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii (Academy of Sciences SSSR, Institute of Physical Chemistry) 44,55

SUBMITTED: 20Aug64 ENCL: 01 SUB CODE: MM

NO REF SOV: 003 OTHER: 001

Card 2/3

L 2618-66

ACCESSION NR: AP5011366

ENCLOSURE: 01

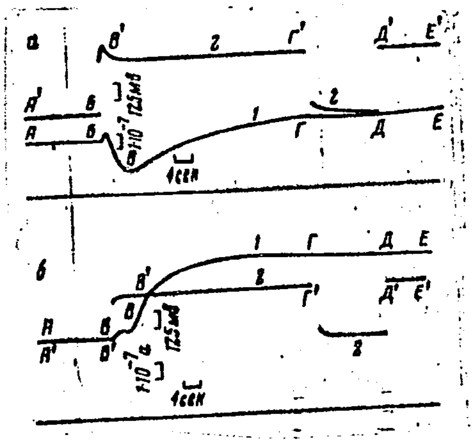

Fig. 1. a--passivated sample; b--activated sample; 1--reflectivity; 2--polarization; AB and A'B'--prior to current switch-on; BCD and B'C'D'--during the electrolysis process, DE and D'E'--current-off period; EF and E'F'--after the second on-current period.

Card 3/3

TITOVA, V.N.

Scientific and technical seminar on efficient use of electric power in industry. Prom. energ. 19 no.8:45-46 Ag '64. (MIRA 17:11)

CHEL'NYI, A.M.; TITOVA, V.S.; ZLATKINA, S.A.

Prevention of staphylococcal diseases in mothers and newborn infants by means of immunization with a purified sorbed staphylococcal anatoxin. Zhur. mikrobiol., epid. i immun. 32 no.9:27-30 S '61. (MIRA 15:2)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR, Taldomskoy bol'nitsy i Verbilkovskoy uchastkovoy bol'nitsy Moskovskoy oblasti.

(STAPHYLOCOCCAL DISEASE) (VACCINATION)
(INFANT (NEWBORN)) (PREGNANCY)

PANCHENKO, S.M.; SUBORA, L.V.; KURAKOVA, Ye.I.; TITOVA, V.V. (Moskva)

Electrode paste in electrocardiography. Klin.med. 36 no.1:144-147 Ja '58. (MIRA 11:3)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta meditsinskogo instrumentariya i oborudovaniya.

(ELECTROCARDIOGRAPHY
electrode pastes (Rus)

[illegible]

AUTHOR: [illegible]

SOURCE: [illegible]

[illegible] electric

[illegible] Center for Scientific-Technological Propaganda [illegible] Administration of the Scientific Tech- [illegible]

[illegible] electrical power. The sem- [illegible] and consuming [illegible]

Card 1

ACCESSION NR: AP [illegible]

Power [illegible] Cand. Tech. Sci. I. A. [illegible]

[illegible] used for the Improvement of [illegible] presented

[illegible] which regulate the diurnal variation of consumer load [illegible] reported on bases of the above mentioned [illegible]

SUBMITTED: [illegible]

NO REF SOV: 000 ENCL: [illegible] OTHER: 000 SUB CODE: EE, IE
JPRS

Card 2/2

V.V. TITOVA, (G.Y. Sergeyev)

"INFLUENCE OF FABRICATION ON STRUCTURE AND PROPERTIES OF URANIUM"

By G. Y. Sergeyev, V. V. Titova

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

TITOVA, V.V.

SOV/[illegible]

AUTHORS: Zaymovskiy, [illegible], Sergeyev, G. Ya., Titova, V. V., [illegible]
R. M., [illegible], Yu. N.

TITLE: The Influence of the Structure and Properties of Uranium [illegible] its Behaviour Under Irradiation (Vliyaniye struk[illegible] urana na yego povedeniye pod oblucheniyem)

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 4, pp [illegible]

ABSTRACT: It was possible to show that by varying the composition of [illegible] alloys and by changing the thermal treatment the consequence[illegible] of the modification of the size of grain of the nucleus and the texture of uranium after irradiation can partly be eliminated. The dependence of the size of the nuclear grain of the enriched uranium, its hardness, its strength limit, and its stretching-strain limit upon the iron-, silicon-, and aluminum content [illegible] the alloy is determined by experiment. The cooling-down ra[illegible] and the content of the admixtures mentioned influence the [illegible]tion of the β-α transformation point. At a cooling-down rate [illegible] 400°C/sec and a silicon content of 0,05 weight percents the [illegible] transformation point between the β- and the α-phase decreases to 550°C. Experiments proved a 50- to 100-fold accelera[illegible]

Card 2

The Influence of the Structure and Properties of Uranium on Its Beha[illegible] Under Irradiation SOV/89-5-4-4/21

creep under irradiation ($nv = 6.10^{12} n/cm^2 .sec$) for textured uranium as well as for uranium with a disorientated structure. The creep-rate of disorientated uranium is closely connected with the velocity of stand-by losses. The mechanical properties of uranium, especially dilatation in the reactor, were investigated experimentally. Even after a short stay of the uranium in the reactor (less than 1 hour) the relative modification of the length becomes less and the strength limit increases. The experimentally found values of G_i are considerably higher than those given in reference 4. A. G. Lanin, V. M. [illegible], V. K. Zakharova, L. N. Protsenko, V. N. Golovanova, and K. [illegible] Borisov took part in the investigations. There are 10 figures, 1 table, and 12 references, 1 of which is Soviet.

SUBMITTED: July 21, 1958

2

SOV/89-5-4-4/24

AUTHORS: Kalashnikov, V. V., Titova, V. V., Sergeyev, G. Ya., Samoylov, A. G.

TITLE: On Uranium-Molybdenum Alloys in Reactor Construction (Survey) (Uran-molibdenovyye splavy v reaktorostroyenii. Obzor)

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 4, pp 421-431 (USSR)

ABSTRACT: The following data on uranium-molybdenum have been compiled on the basis of mainly foreign publications.

1) Phase diagrams and the general properties of alloys.
2) The mechanical properties of some U-Mo alloys (Mo content 2,2 to 12%).
3) Measurement stability of U-Mo alloys after cyclical treatment (heating - cooling). Here especially the papers by S. T. Konobeyevskiy are mentioned.
4) Radiation-stability and corrosion-stability of U-Mo alloys in water.

The following may be said about the use of U-Mo alloys as nuclear fuel:

a) compared to pure uranium, U-Mo alloys have a higher mechanical strength, better corrosion-resisting properties at

Card 1/2

SOV/89-5-4-4/24

On Uranium-Molybdenum Alloys in Reactor Construction (Survey)

higher temperatures, and high stability of measurements also after cyclical thermal treatment.

b) The alloy is especially easily worked into rods and tubes, but less well into plates.

c) The application of U-Mo alloys forcibly leads to an increase of the degree of enrichment of U^{235}.

d) U-Mo alloys can probably be used with good success for fast reactors.

There are 7 figures, 9 tables, and 18 references, 4 of which are Soviet.

SUBMITTED: June 21, 1958

Card 2/2

21(1)

AUTHORS: Sergeyev, G. Ya., Titova, V. V., Savitskiy, Ye. M., Zhul'kova, A. A., Nikolayeva, Z. P.

SOV/89-5-6-2/25

TITLE: The Mechanical Properties of Uranium (Mekhanicheskiye svoystva urana)

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 6, pp 618-623 (USSR)

ABSTRACT: The test apparatus (IM - 4R) with which the hardness of uranium at increased temperature and the expansion of uranium at increased temperature were investigated in a neutral gas (argon), are represented by two sectional drawings. Measuring results are given by a graph. The following details are mentioned:

The hardness of the uranium decreases with increasing temperature. If temperature rises up to 600°C, hardness decreases from 350 kg/mm^2 to 50 kg/mm^2. A regular variation of hardness in dependence on the carbon content of the uranium (0.07 to 0.24 %) was not observed.

The presence of carbon in uranium samples influences outflow pressure if these samples are pressed in the α-phase. The outflow pressure increases with an increasing carbon content

Card 1/3

(0.09 to 0.24 %). At 650°C and a degree of deformation of 75 % the outflow pressure increases by about 60 %. For uranium in the γ-phase outflow pressure decreases from 4 kg/mm^2 at 830°C to 1.8 kg/mm^2 at 1050°C.

Ultimate strength and creep strength increase with an increasing carbon content in the uranium. In hot-rolled uranium with a C-content of 0.01 % ultimate strength is $\sigma_b = 36\ kg/mm^2$, in uranium with 0.24 % C-content $\sigma_b = 52\ kg/mm^2$. The creep strengths in these cases amount to 23 to 31 kg/mm^2.

At temperatures of from 100 - 150°C all mechanical properties characterizing the strengths decrease monotonously, whereas the properties that characterize plasticity increase. For uranium with 0.12 % C-content one finds that at 750°C $\sigma_b = 12\ kg/mm^2$, $\delta = 18\ \%$ (relative elongation), $\psi = 51\ \%$ (relative narrowing of the pressed surface), at 600°C $\sigma_b = 7\ kg/mm^2$, $\delta = 23\ \%$, $\psi = 76\ \%$, and at 850°C $\sigma_b = 0.8\ kg/mm^2$, $\delta = 31\ \%$, $\psi = 97\ \%$.

γ-uranium, which has a volume-centered lattice, has the highest degree of plasticity. The tetragonal β-uranium is inclined to be brittle, and velocity of deformation is more

Card 2/3

The Mechanical Properties of Uranium SOV/89-5-6-2/25

sensitive to temperature. Because of the low symmetry of the rhombic lattice of α-uranium, the latter is characterized by sharply marked anisotropic properties. There are 13 figures, 2 tables, and 3 references.

SUBMITTED: July 16, 1958

Card 3/3

Titova, V.V.

21(4) PHASE I BOOK EXPLOITATION SOV/2714

International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958

Doklady sovetskikh uchenykh; yadernoye goryucheye i reaktornyye metally. (Reports of Soviet Scientists; Nuclear Fuel and Reactor Metals) Moscow, Atomizdat, 1959. 670 p. (Series: Its: Trudy, vol. 3. 8,000 copies printed.

Ed. (Title page): A.A. Bochvar, Academician, A.P. Vinogradov, Academician, V.S. Yemel'yanov, Corresponding Member, USSR Academy of Sciences, and A.P. Zefirov, Doctor of Technical Sciences; Ed. (Inside book): V.V. Fereverzev and O.M. Pchelintseva; Tech. Ed.: E.I. Mazel'.

PURPOSE: This volume is intended for scientists, engineers, physicians, and biologists working in the production and peaceful application of atomic energy; for professors and students of schools of higher technical education where the subject is taught; and for people interested in atomic science and technology.

COVERAGE: This is volume 3 of a 6-volume set of reports on atomic energy, presented by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held in Geneva from September 1 to 13, 1958. Volume 3 consists of two parts. The first part, edited by A.I. Zubov, is devoted to geology, prospecting, concentration and processing of nuclear source material. The second part, edited by G.L. Zverev, includes 27 reports on metallurgy, metallography, processing technology of nuclear fuels and reactor metals, and neutron irradiation effects on metals. The titles of the individual papers in most cases correspond word for word with those in the official English language edition on the Conference proceedings. See SOV/2081 for the titles of the other volumes of the set.

Budayev, I.V., and A.N. Vol'skiy. Investigating the Reactions of Uranium Dioxide and Plutonium Dioxide Chlorination by Carbon Tetrachloride (Report No. 2195) 285

Voronov, N.M., Ye.A. Voytekhova, and A.S. Danilin. Phase Diagrams for the $UO_2 - ZrO_2$ and the $ThO_2 - ZrO_2$ Systems (Report No. 2490) 315

Budnikov, P.P., S.G. Tresvyatskiy, and V.I. Kushakovskiy. Binary Phase Diagrams for $UO_2 - Al_2O_3$; $UO_2 - BeO$; and $UO_2 - MgO$ (Report No. 2193) 322

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TITOVA, V.V.

21(4) PHASE I BOOK EXPLOITATION SOV/2714

International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958

Doklady sovetskikh uchenykh; yadernoye goryucheye i reaktornyye metally. (Reports of Soviet Scientists; Nuclear Fuel and Reactor Metals) Moscow, Atomizdat, 1959. 670 p. (Series: Its: Trudy, vol. 3. 8,000 copies printed.

Ed. (Title page): A.A. Bochvar, Academician, A.P. Vinogradov, Academician, V.S. Yemel'yanov, Corresponding Member, USSR Academy of Sciences, and A.P. Zefirov, Doctor of Technical Sciences; Ed. (Inside book): V.V. Pereversev and G.M. Pchelintseva; Tech. Ed.: E.I. Mazel'.

PURPOSE: This volume is intended for scientists, engineers, physicians, and biologists working in the production and peaceful application of atomic energy; for professors and students of schools of higher technical education where the subject is taught; and for people interested in atomic science and technology.

COVERAGE: This is volume 3 of a 6-volume set of reports on atomic energy, presented by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held in Geneva from September 1 to 13, 1958. Volume 3 consists of two parts. The first part, edited by A.I. Zubov, is devoted to geology, prospecting, concentration and processing of nuclear source material. The second part, edited by G.L. Zverev, includes 27 reports on metallurgy, metallography, processing technology of nuclear fuels and reactor metals, and neutron irradiation effects on metals. The titles of the individual papers in most cases correspond word for word with those in the official English language edition on the Conference proceedings. See SOV/2081 for the titles of the other volumes of the set.

Sinel'nikov, K.D., V.Ye. Ivanov, V.M. Amonenko, and V.D. Burlakov. Refining Beryllium and Other Metals by Condensation on Heated Surfaces (Report No. 2051) 526

Ivanov, Ye.S., and V.K. Shmelev. Melting and Casting of Beryllium (Report No. 2048) 536

Vol'skiy, A.N., N.V. Vyatkina, N.P. Zvereva, N.L. Kal'tman, and T.S. Poschilo. Production of Chemically Pure Strontium, Barium, Magnesium, and Calcium (Report No. 2050) 542

Bochvar, A.A., G.Ya. Sergeyev, A.A. Zhul'kova, L.I. Kolobneva, and G.I. Tomson. Effect of Thermal Cycling and Cooling on the Dimensional and Structural Stability of Various Metals and Alloys (Report No. 2190) 554

Zaymovskiy, A.S., G.Ya. Sergeyev, V.V. Titova, B.M. Levitskiy, and Yu.N. Sokurskiy. Influence of the Structure and Properties of Uranium on Its Behavior Under Irradiation (Report No. 2191) 573

Card 9/11

11(6), 21(1) SOV/89-6-3-2/29

AUTHORS: Sergeyev, G. Ya., Titova, V. V.

TITLE: Uranium and Its Alloys (Uran i yego splavy)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 3, pp 253 - 260 (USSR)

ABSTRACT: This article is a survey which has been compiled primarily on the basis of the western Geneva reports for 1958. The following reports were used in the compilation of information in the individual fields:

1) The properties of uranium monocrystals: Nr 713 and 1258.
2) Structural changes in uranium under thermal treatment: Nr 713, 2191, 2307.
3) Mechanical properties of uranium at elevated temperatures: Nr 49, 50, 317, 2307.
4) Influence of irradiation upon uranium: Nr 81, 616, 617, 618, 791, 2191.
5) Uranium alloys: Nr 713, 1890, 2043.
6) Modern methods of metallographical investigation of irradiated and not irradiated uranium: Nr 1855. There are 7 figures and 1 table.

SUBMITTED: December 25, 1958

Card 1/1

S/089/60/008/04/03/009
B113/B017

AUTHORS: Sergeyev, G. Ya., Titova, V. V., Nikolayeva, Z. P., Kaptel'tsev, A. M.

TITLE: Thermal Treatment of Uranium

PERIODICAL: Atomnaya energiya, 1960, Vol. 8, No. 4, pp. 340-347

TEXT: The authors investigated the influence exercised by hardening on the macro- and microstructure as well as the mechanical properties of cast and hot-rolled uranium at increased and room temperatures. Uranium was hardened from various cooling media, in water of different temperatures, from different phases, with varying sample diameters. Repeated hardenings were made. Results of measurement are shown in figures, tables, and curves. Hardening reduces the grain size of uranium. Strength increases after the hardening from the beta phase by about 30%, from the gamma phase by 60%. Repeated hardening of uranium increases its creeping strength at temperatures below 400°C. The degree of change in the macro- and microstructure and strength properties depends on the chemical composition of uranium. Strength increases with the increase in the cooling rate from

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Thermal Treatment of Uranium

S/089/60/008/04/03/009
B113/B017

the beta and gamma phase. At all temperatures the strength of the alpha phase of hardened uranium is higher than that of non-hardened uranium. There are 8 figures, 4 tables, and 7 references: 4 Soviet and 3 American.

SUBMITTED: April 20, 1959

VB

Card 2/2

PHASE I BOOK EXPLOITATION SOV/5314

Sergeyev, G. Ya., V.V. Titova, and K.A. Borisov

Metallovedeniye urana i nekotorykh reaktornykh materialov (The Metallography of Uranium and Certain Reactor Materials) Moscow, Atomizdat, 1960. 223 p. 5,000 copies printed.

Ed.: A.I. Zavodchikova; Tech. Ed.: N.A. Vlasova.

PURPOSE: This book is intended for scientists and engineers in scientific research institutes, design and planning organizations, and industrial enterprises. It may also be used by students taking advanced courses in higher schools of education.

COVERAGE: The book on the metallography of uranium and reactor materials contains data taken from Soviet and non-Soviet materials presented at the Second International Conference on the Peaceful Uses of Atomic Energy (Geneva, 1958), and from later sources dealing specifically with the effects of conditions in the active zone of a reactor on the properties (especially size and structural stability) of uranium, its alloys, and

Card 1/8

structural materials used in fuel elements with all-metal cores. Computational data and information on the design and operation of nuclear reactors and the production of fuel elements are also given. The thermal and thermomechanical processing of uranium, the effect of radiation and heating cycles on size stability, and the physicomechanical properties of uranium and its alloys and of structural materials are discussed. No personalities are mentioned. There are 170 references: 75 Soviet (including translations), 88 English, 5 French, and 2 German.

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Ch. II. Structure and Physical Properties of Uranium 18
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2. Density and thermal expansion 22
3. Thermodynamic properties 25
4. Heat conductivity 28
5. Electrical properties 29

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S/089/60/009/002/003/015
B006/B056

21.3100
5.2200

AUTHORS: Sergeyev, G. Ya., Titova, V. V., Kolobneva, L. I.

TITLE: Recrystallization of Cold-rolled Uranium

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 2, pp. 104-109

TEXT: The authors investigated the influence exerted by rolling and annealing in the α-phase upon the structure and the mechanical properties of uranium, and in the present paper, they give a report upon the results obtained. The raw material investigated consisted of 99.7% by weight of U, 0.02% by weight of C + Fe, Si, Ni, and N impurities. The uranium was rolled in the γ-phase (at 950-900°C, degree of deformation ~80%), after which it was slowly cooled and hardened from the β-phase (720-730°C); only then was the cast uranium cold-rolled. The change in the microstructure of the uranium is shown in the photos (Fig. 1). The cast uranium and that rolled in the γ-phase show a rough granulation (1.5 - 2.5 mm); after hardening from the β-phase, the grain size amounts to only 100 to 200μ. The fine-grained uranium has a considerably greater strength than the rough-grained initial material. Figs. 3 and 4 show the changes in

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Recrystallization of Cold-rolled Uranium

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the mechanical properties of the rolled uranium as functions of the degree of deformation. In the case of a deformation by 40 - 50%, hardness increases by 35%, and the limit of strength by 75%; the relative linear expansion remains practically constant. In the following, the authors discuss the influence exerted by annealing in the α-phase upon the structure and mechanical properties of the cold-rolled uranium. Microphotographs show the changes in microstructure in the case of 10 hours' annealing in the α-phase at different temperatures as dependent on the degree of deformation. Recrystallization annealing reduces the strength characteristics, but at all degrees of deformation the values are still higher than those of the initial substance. It is found that recrystallization practically does not depend on the initial states investigated. Some data are given on the kinetics of recrystallization, and are discussed. Fig. 6 shows approximated diagrams of recrystallization for three initial states, and Fig. 7 shows the kinetic curves of the change in grain size. The influence exerted by an addition of 0.1% by weight of molybdenum upon the recrystallization process is finally discussed. The diagram in Fig. 7b shows the grain sizes for such a material as a function of the duration of annealing. The change in microstructure is shown in Fig. 8. Fig. 9 shows the results obtained by hardness

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Recrystallization of Cold-rolled Uranium S/089/60/009/002/003/015
E006/B056

measurements as functions of the annealing temperature. The addition of molybdenum causes a certain solidification. With the grain size being the same, the molybdenum-alloyed uranium has a strength that is by 20% greater than that of pure uranium. There are 9 figures and 10 references: 3 Soviet, 2 French, and 3 US. 4

SUBMITTED: February 3, 1960

Card 3/3

KUCHEROVSKAYA, G.P.; TITOVA, V.V.; BOBROVA, D.Z.

Application of epoxide paint and varnish materials for anticorrosive protection of equipment. Khim.volok. no.1:70-71 '63. (MIRA 16:2)

1. Kalininskiy kombinat iskusstvennogo volokna (for Kucherovskaya). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (for Titova). 3. Klinskiy kombinat iskusstvennogo volokna (for Bobrova).

(Epoxy resins) (Corrosion and anticorrosives)
(Rayon industry—Equipment and supplies)

S/183/63/000/001/004/004
B101/B186

AUTHORS: Kucherovskaya, G. P., Titova, V. V., Bobrova, D. Z.

TITLE: Use of epoxy varnishes and paints to inhibit corrosion of apparatus

PERIODICAL: Khimicheskiye volokna, no. 1, 1963, 70-71

TEXT: The following practical results are reported for the painting of apparatus with epoxy resins. At the Mytishchinskiy eksperimental'nyy zavod iskusstvennogo volokna (Mytishchi Pilot Plant of Synthetic Fibers), filter presses of the viscose plant were painted with ЭД-5 (ED-5). The results have been published by G. V. Talayeva (Khim. volokna, no. 3, 58 (1960)). Fans drawing air at 30-35°C out of spinning machines, containing sulfur compounds, were painted with varnish based on Э-40 (E-40) epoxy resin; they were in operation for two years. An air conduit for drawing off the air-steam mixture over a setting bath had been painted with ED-5 and Э-4020 (E-4020) epoxy resin. The conduit has been in operation since 1959 without being damaged. At the Klinskiy kombinat iskusstvennogo volokna (Klin Combine of Synthetic Fibers), seven filter presses were

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Use of epoxy varnishes and paints to ... B101/B186

painted with ED-5, Э-1200 (E-1200) epoxy resins and Э-4021 (E-4021) epoxy first coat. The coat remained undamaged for more than two years. The viscose solution was less contaminated and the spinnerets clogged less often. Painting a platform conveyer for alkali cellulose with ED-5 prevented the material from sticking to the metal. At the Kalininskiy kombinat iskusstvennogo volokna (Kalinin Combine of Synthetic Fibers), filter presses and viscose tanks (22 m^3 volume) were painted. The coat on the tanks was undamaged after two years of operation. Coating the tanks rendered cleaning easier. As compared with perchloro vinyl coats, the epoxy coats adhere better to the metal and are more stable to alkaline solutions. Coating viscose manufacturing apparatus with epoxy materials is recommended.

ASSOCIATION: Kalininskiy kombinat (Kalinin Combine) (G. P. Kucherovskaya); VNIIV (V. V. Titova); Klinskiy kombinat (Klin Combine) (D. Z. Bobrova)

SUBMITTED: August 6, 1962

Card 2/2

TITOVA, Ye.A.

Thermal conditions in the Sochi-Matsesta artesian basin.
Trudy Lab. gidrogeol. probl. 30:110-119 '60. (MIRA 14:4)
(Matsesta region—Springs)

TITOVA, Ye.I.

Readers discuss a new book ("New finishing equipment and technology," by A.S.Stepanov. Reviewed by E.I.Titova). Tekst.prom. 20 no.3:90-91 Mr '60. (MIRA 14:5)

1. Zaveduyushchiy tekhnicheskoy bibliotekoy fabriki imeni Zhideleva.
(Textile finishing) (Stepanov, A.S.)

L 24265-66 EWT(1)/EWT(m)/EWP(t) IJP(c) JD/JG

ACC NR: AP6007008 SOURCE CODE: UR/0051/66/020/002/0335/0336

58
B

AUTHOR: Miloslavskiy, V. K.; Titova, Ye. I.

ORG: none

2/

TITLE: Observation of the Faraday effect in interference light filters

SOURCE: Optika i spektroskopiya, v. 20, no. 2, 1966, 335-336

TOPIC TAGS: Faraday effect, light filter, optic coating, optic transmission, light reflection, light polarization

ABSTRACT: This is a continuation of an earlier paper (Opt. i spektr. v. 14, 532, 1963) where it was shown that when transmission interference filters are used it is possible to amplify the Faraday effect in a dielectric which forms an integral part of the filter. The present study was devoted to the amplification in the systems Ag-ZnS-Ag and Ag-cryolyte-Ag. The filters were obtained by vacuum evaporation at a pressure $< 10^{-4}$ mm Hg on a glass substrate. The angle of rotation of the plane of polarization was measured in a magnetic field of about 20 kG using a photoelectric spectropolarimeter in the 400-700 nm range. The same apparatus was used to measure the transmission of the filters. The results for the Ag-ZnS-Ag system show that the rotation and transmission angles change periodically with the wavelength, and that the maxima of the rotation and transmission coincide. This agrees with the deduction of the earlier data. Calculation of the amplification coefficient shows that for different filters it ranged from 10 to 18, corresponding to a variation in the reflectivi

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ACC NR: AP6007008

ty from 82 to 90%, caused by the different conditions under which the filters were prepared. The Ag-cryolyte-Ag system showed no oscillations in the angle of rotation, because of the small value of the Verdet constant for cryolyte in the absence of measured additional rotations caused by the reflection at the dielectric-silver boundary. It is pointed out in conclusion that in the case of filters in which ferromagnetic layers are used for the metallic coatings the rotation of the plane of polarization would be governed by the ferromagnetic layer, because the small rotations in the dielectric can then be neglected. Orig. art. has: 1 figure and 2 formulas.

SUB CODE: 20/ SUBM DATE: 16Apr65/ ORIG REF: 002/ OTH REF: 003

Card 2/2

BOGOMOLOV, G.V.; PLOTNIKOVA, G.N.; TITOVA, Ye.A.

Content of silica in underground waters in the regions of recent valcanism and the latest tectonic movements in the U.S.S.R. Dokl. AN BSSR 8 no.12:802-805 D '64. (MIRA 18:4)

1. Lanoratoriya geokhimicheskikh problem AN BSSR i Geologicheskiy institut AN SSSR.

BOGOMOLOV, G.V.; PLOTNIKOVA, G.N.; TITOVA, Ye.A.

Silica in the underground waters of some foreign countries.
Dokl. AN BSSR 9 no.2:105-107 F '65. (MIRA 18:5)

1. Laboratoriya geokhimicheskikh problem AN BSSR i Geologicheskiy institut AN SSSR.

LAPSHUN, Ginda Borisovna[Lapshun, H.B.]; TITOVA, Yelizaveta Mikhaylovna[Tytova, IE.M.]; CHERKASOV, O.V., red.; CHUCHUPAK, V.D., tekhn. red.

[Organization of antituberculosis care for children] Dosvid organizatsii protytuberkul'oznoi dopomohy ditiam. Kyiv, Derzhmedvydav URSR, 1961. 54 p. (MIRA 15:7)
(TUBERCULOSIS—PREVENTION) (CHILDREN—DISEASES)

TITOVA, Ye. Ya.

Jun 52

USSR/Engineering - Heat, Boiler Furnaces, Design

"Decrease of Heat Losses Caused by Outgoing Gases," P. D. Ignat'yev, I. I. Ogurtsov, T. I. Ivanova, Engineers of GRES of Mosenergo, N. V. Kuznetsov, Cand Tech Sci, Ye. Ya. Titova, Engr, Boiler Lab, VTI

"Iz v-s Teplotekh Inst" No 6, pp 4-7

Discusses measures developed by joint efforts of VTI collaborators and GRES workers on the basis of so called creative cooperation. Describes constructional changes in furnaces of vertical water-tube boilers of 30 tons/hr productive capacity. Measures deal mainly with reconstruction of air-preheaters and installation of boiler-utilizers, steam from which is used in deaerators for heating feed water. New design decreases temp of outgoing gases from 215° to 154-170°C.

231T43

TITOVA, Ye. Ya.

AID P - 1376

Subject : USSR/Electricity

Card 1/2 Pub. 26 - 3/30

Authors : Kuznetsov, N. V., Kand of Tech. Sci.
Titova, Ye. Ya., Eng and SHCHERBAKOV, A.Z.,
Kand of Tech Sci.

Title : Reduction of the temperature of outgoing flue-gas by adding small-size convection surfaces.

Periodical : Elek. Sta., 2, 8-12, F 1955

Abstract : The authors discuss the problem of reduction of heat losses caused by the high temperature of exit gases. They describe some methods which consist in the development of the existing flue-gas convection surfaces (economisers and air-preheaters), or in creating additional heat-salvaging surfaces (boilers, low temperature heaters, etc.). In more detail they describe the method applied by the All-Union Heat Engineering Institute, which consists in the introduction of small-size tubular

AID P - 1376

Elek. Sta., 2, 8-12, F 1955

Card 2/2 Pub. 26 - 3/30

air-preheaters. 3 diagrams and drawings.

Institution: None

Submitted : No date

TITOVA, YE. YA.

AID P - 2562

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 1/16

Authors : Kuznetsov, N. V., Shcherbakov, A. Z., Kands. Tech. Sci., and Titova, Ye. Ya., Chernyak, V. N., Engs.

Title : Most efficient gas velocities and comparison of data of heating surfaces operating under pressure

Periodical : Teploenergetika, 8, 3-10, Ag 1955

Abstract : The authors determine the most efficient velocity for gas flow in economizers and superheaters on the basis of research on heat transfer, aerodynamic resistance and scale deposits in tubes. A comparison between different shapes of heating surfaces is made in order to demonstrate possibilities for the improvement of convected sections in the boiler design. Nine diagrams, 8 Russian references, 1935-1955.

Institution: All-Union Heat Engineering Institute

Submitted : No date

TITOVA, Ye. Ya.

AID P - 2761

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 3/14

Authors : Kuznetsov, N. V. and Shcherbakov, A. E., Kands. Tech. Sci., Titova, E. Ya. and Chernyak, V. Ya., Engs.

Title : Optimal velocities of air and smoke gases in air-heaters and a technical and economical comparison of heated surfaces

Periodical : Teploenerg., 9, 18-21, S 1955

Abstract : Preheaters of different types, such as plate, tubular, cast-iron ribbed and corrugated iron, and their operation are discussed. The most efficient velocity of air and gas in ducts is mathematically analyzed with equations and tables. Five diagrams. Three Russian references, 1946-1955.

Institution : All-Union Heat Engineering Institute

Submitted : No date

LUZHNOV, G.I., kand. tekhn. nauk; TITOVA, Ye.Ya., inzh.

Study of heat transfer and aerodynamic resistance of convective heating surfaces. Teploenergetika 10 no.7:42-47 Jl '63.
(MIRA 16:7)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Heat—Transmission) (Boilers)

BOGOMOLOV, G.V.; PLOTNIKOVA, G.N.; TITOVA, Ye.A.

Silica in the underground waters of some regions of the Russian Platform. Dokl. AN BSSR 8 no.11:731-735 N '64. (MIRA 18:3)

1. Laboratoriya Geokhimicheskikh problem AN BSSR i Geologicheskiy institut AN SSSR.

CA

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

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COMMON ELEMENTS

COMMON VARIABLES INDEX

Electrowinning of copper from Naukat ore. Yu. G. Titova. *J. Applied Chem.* (U. S. S. R.) **8**, 546–53 (in German 554)(1935).—Up to 83% Cu was extd. from an ore concentrate at 2.0 to 2.2 v. in a H_2SO_4 soln. Cl^- lowers the yield of Cu and introduces impurity. The acid consumption was 25% in excess of that for American plants.

A. A. Boehtlingk

OPEN

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Fe GROUPS

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2ND LETTER

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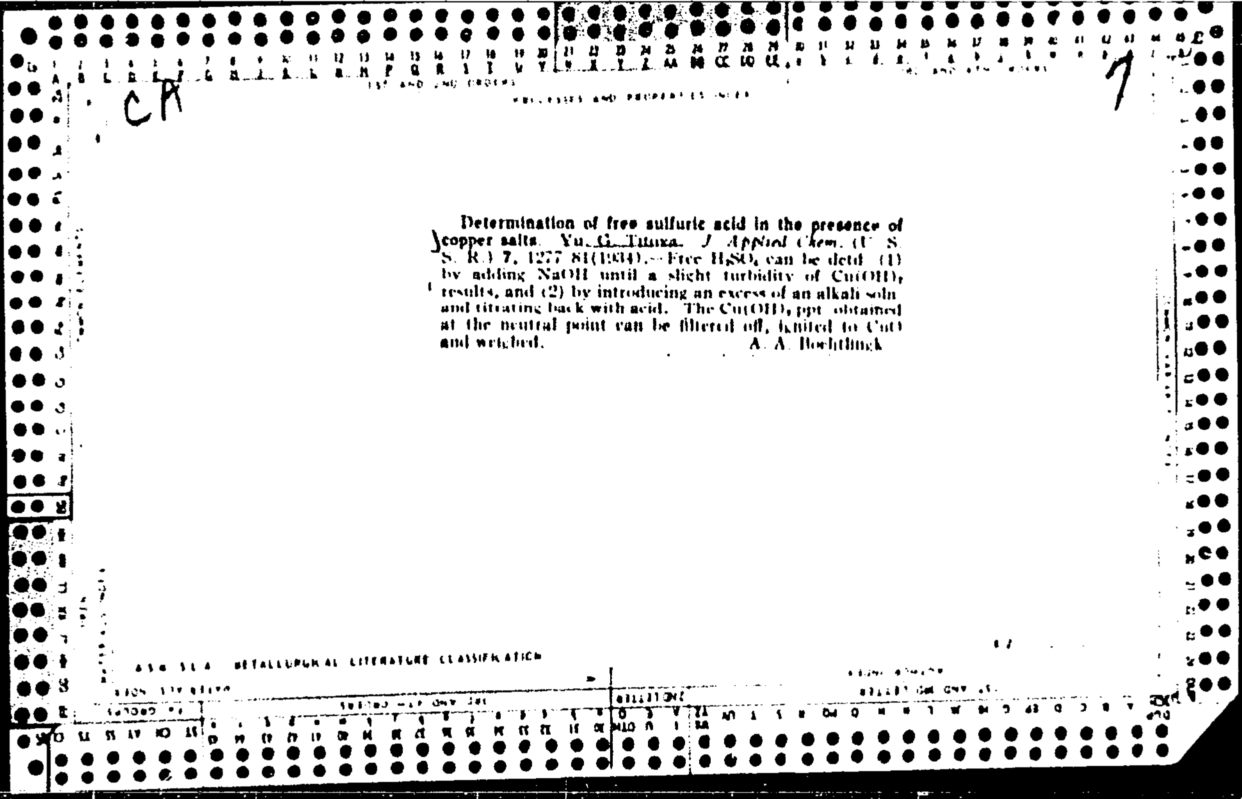
1ST AND 2ND LETTER



CA

7

Determination of free sulfuric acid in the presence of copper salts. Yu. G. Titova. *J. Applied Chem.* (U. S. S. R.) 7, 1277-81(1934).—Free H_2SO_4 can be detd. (1) by adding NaOH until a slight turbidity of $Cu(OH)_2$ results, and (2) by introducing an excess of an alkali soln. and titrating back with acid. The $Cu(OH)_2$ ppt. obtained at the neutral point can be filtered off, ignited to CuO and weighed. A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

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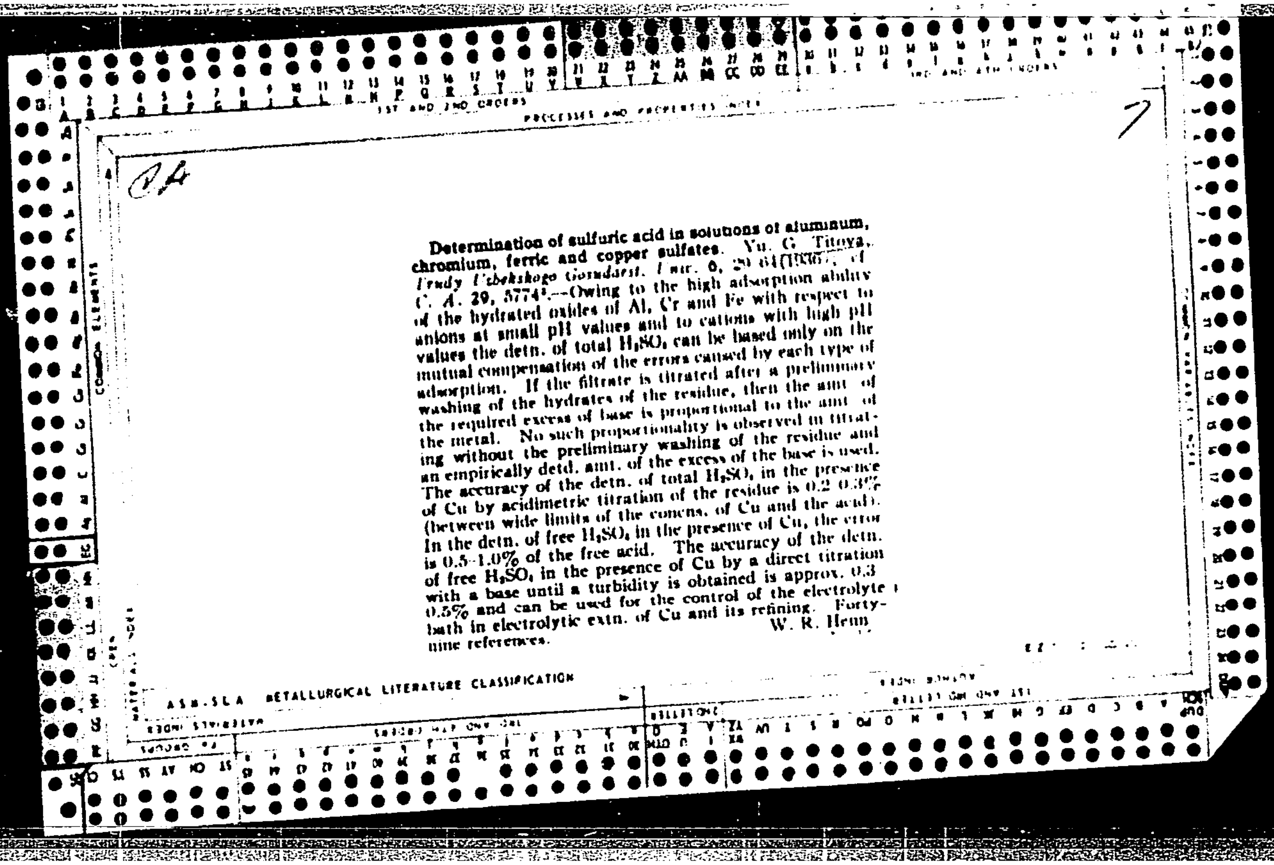
Determination of sulfuric acid in solutions of aluminum, chromium and iron sulfates. III. S. A. Tolkachev and Yu. G. Titova. *J. Applied Chem.* (U. S. S. R.) **8**, 1271-82(in English 1282-3)(1935); cf. Titova, *C. A.* 29, 5774^3.—A method for detg. free and combined H_2SO_4 was studied with solns. of alums. An excess of 0.5 *N* NaOH was introduced into the soln., followed by satg. the mixt. with CO_2 to decompose $Al(ONa)_3$ (or $Cr(ONa)_3$) and titrating back with acid. The method gives low values in the presence of insufficient excess of NaOH because of the adsorption of sulfate by the hydroxides ($Al(OH)_3$, $Cr(OH)_3$ or $Fe(OH)_3$), and high values because of the adsorption of Na^+. A nearly equiv. adsorption of sulfate and Na^+ with a mutual compensation of the errors can be effected by the addn. of definite excesses of NaOH, viz., 25-30, 10-15 and 8-10 cc. of 0.5 NaOH for 0.1 g. Al_2O_3, Cr_2O_3 and Fe_2O_3, resp. The required excess of NaOH is detd. by a preliminary detn. of the cations. The method is accurate to 0.2-0.3% H_2SO_4. Also in *Z. anal. Chem.*, 105, 96-100(1936). C. B.

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION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3RD AND 4TH ORDERS
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION
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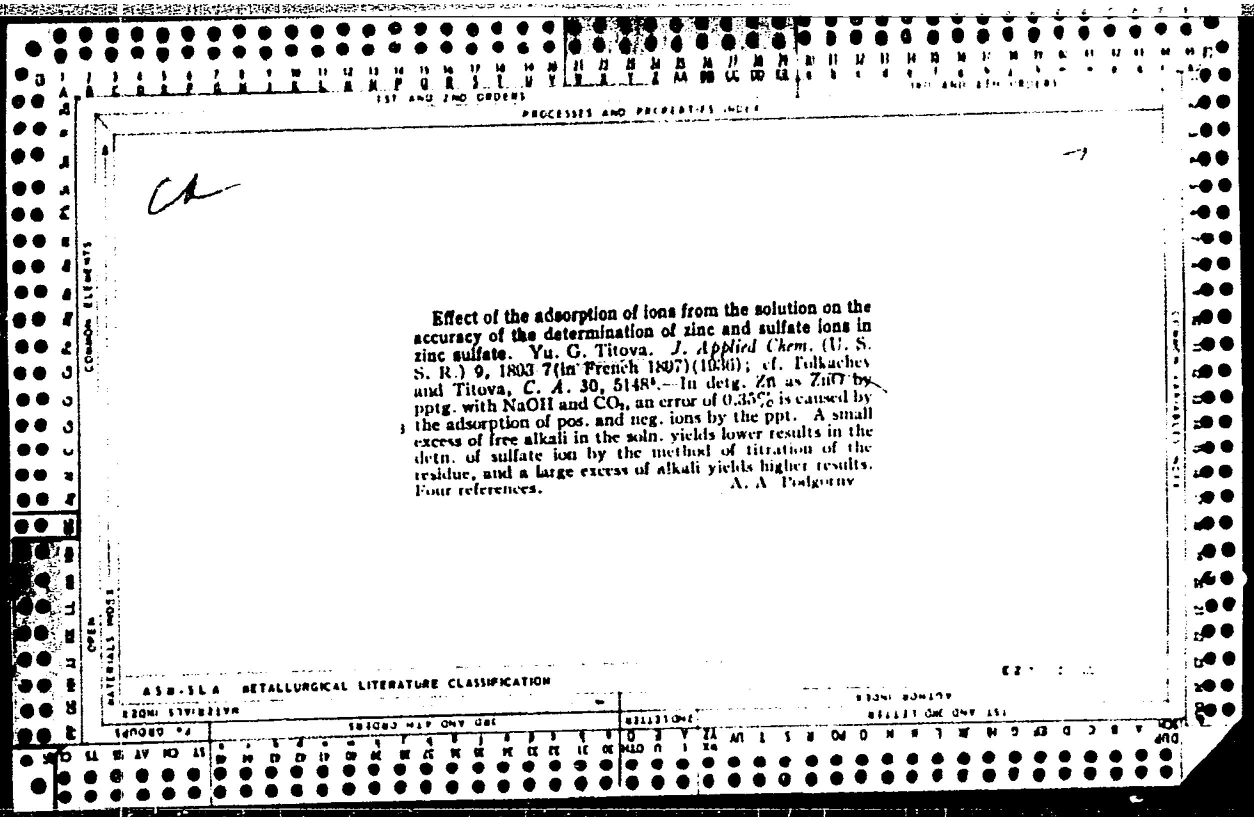
Determination of sulfuric acid in solutions of aluminum, chromium, ferric and copper sulfates. Yu. G. Titova. *Trudy Uzbekskogo Gosudarst. Univ.* 6, 29-64(1936); cf. *C. A.* 29, 5774².—Owing to the high adsorption ability of the hydrated oxides of Al, Cr and Fe with respect to anions at small pH values and to cations with high pH values the detn. of total H_2SO_4 can be based only on the mutual compensation of the errors caused by each type of adsorption. If the filtrate is titrated after a preliminary washing of the hydrates of the residue, then the amt. of the required excess of base is proportional to the amt. of the metal. No such proportionality is observed in titrating without the preliminary washing of the residue and an empirically detd. amt. of the excess of the base is used. The accuracy of the detn. of total H_2SO_4 in the presence of Cu by acidimetric titration of the residue is 0.2-0.3% (between wide limits of the concns. of Cu and the acid). In the detn. of free H_2SO_4 in the presence of Cu, the error is 0.5-1.0% of the free acid. The accuracy of the detn. of free H_2SO_4 in the presence of Cu by a direct titration with a base until a turbidity is obtained is approx. 0.3-0.5% and can be used for the control of the electrolyte bath in electrolytic extn. of Cu and its refining. Forty-nine references. W. R. Henn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ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

Ca

Effect of the adsorption of ions from the solution on the accuracy of the determination of zinc and sulfate ions in zinc sulfate. Yu. G. Titova. *J. Applied Chem.* (U. S. S. R.) 9, 1803-7(in French 1807)(1936); cf. Tolkachev and Titova, *C. A.* 30, 5148^4.—In detg. Zn as ZnO by pptg. with NaOH and CO_2, an error of 0.35% is caused by the adsorption of pos. and neg. ions by the ppt. A small excess of free alkali in the soln. yields lower results in the detn. of sulfate ion by the method of titration of the residue, and a large excess of alkali yields higher results. Four references. A. A. Podgorny

TITOVA, YU. G.

20559 TITOVA, YU. G. O komplekshykh soyedininyakh tsinka s kaniy-merkuri-iodidom. Trudy krasnodarsk. In-ta pishch. prom-sti, vyp. 4, 1948, s. 127-29.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva - 1949

7

CA

Ultramicro-volumetric determination of silver in thin layers. Yu. G. Titova. *Zhur. Anal. Khim.* 6, 51-5 (1951).—Ultramicro quantities, 1.8-14.5 γ, of Ag were detd. by 2 methods: by titration with 0.005-0.01 *N* NH_4CNS solns. with $(NH_4)Fe(SO_4)_2$ as indicator and by titration of an iodide soln. with the Ag salt soln. with iodo starch as indicator (cf. Korenman, *C.A.* **28**, 2043[1]). In both cases an ultramicroburet was used. M. Hosch

BERSUKER, I.B.; TITOVA, Yu.G.

Symmetry of ligand coordination around a central ion with unfilled p-shells. Izv. AN Mold. SSR no.10:18-22 '62.

(MIRA 17:12)

L [illegible] EWT(m) EWP [illegible] EWP [illegible] [illegible] JD/RM

ACCESSION NR: AR5012224 UR/0058/65/000/003/D010/D010

SOURCE: Ref. zh. Fizika, Abs. 3D6[illegible]

AUTHOR: Bersuker, I. B.; Vekhter, B. G.; Titova, Yu. G.

TITLE: Effect of inversion splitting for tetrahedral complexes of transition metals

CITED SOURCE: Izv. AN MoldSSR. Ser. yestestv. i tekhn. n., no. 9, 1963, 16-21

TOPIC TAGS: inversion splitting, tetrahedral complex, transition metal, electron vibrational level, copper tetrachloride, vanadium tetrachloride

TRANSLATION: The theory developed by Bersuker (RZhFiz, 1963, 3D68) for the inversion splitting of electron-vibrational levels of octahedral complexes of transition metals is extended to include the [illegible] tetrahedral complexes. [illegible] account the results [illegible] the [illegible] inversion splitting [illegible] redu[illegible] to the adaptation of the formulas to the case of tetrahedra

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L 4[illegible]

ACCESSION NR: AR5012224

complexes and to the evaluation of the corresponding estimates. Esti-[illegible]

[illegible]

large [illegible] ng of the ground state (10^{-4}--10^{-2} Mev) shows that the effect can be significant in the solution of [illegible] problems in [illegible] systems, and also in the investigation of certain optical and thermodynamic properties. Ye. Pshenichnov.

SUB CODE: IC, NP ENCL: 00

Card 2/2

TITOVA, Yu G.

USSR/Chemical Technology. Chemical Products and Their Application--Fats and oils. Waxes. Soaps. Detergents. Flotation reagents. I-27

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10153

Author : Znamenskaya, V. M. and Titova, Yu. G.
Inst : Krasnodar Institute of the Food Industry
Title : The Microchemical Determination of Nickel in Hydrogenated Fats

Orig Pub: Tr. Krasnodarsk. in-ta pishch. prom-sti, 1955, No 11, 47-49

Abstract: A micromethod for the determination of nickel in hydrogenated fats and margarine is described. A 1 gm sample of the fat is melted in a crucible and ignited; when the ignition is complete the residue is roasted in a muffle furnace which has been heated to a dull red heat. The residue in the crucible is dissolved in a few drops of aqua regia and the solution evaporated

Card 1/2

USSR/Chemical Technology. Chemical Products and Their Application--Fats and oils. Waxes. Soaps. Detergents. Flotation reagents. I-27

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10153

Abstract: to dryness; 2-3 drops of 20% HCl are added, and the solution is again evaporated to dryness. The residue is ground with crystals of CH_3COONa and crystals of dimethylglyoxime. If the mixture turns grey, it is again dissolved in 1-2 drops of 20% HCl with the addition of several drops of H_2O and the insoluble residue is centrifuged, the centrifugate is evaporated, and the test for Ni repeated as above. Dry $K_4Fe(CN)_6$ is used for the detection of iron in fats. In the presence of iron, the mixture turns blue.

Card 2/2

KEL'TSEV, N.V.; TITOVA, Yu.K.; TOROCHESHNIKOV, N.S.

Use of synthetic zeolites in the deep purification of liquefied gases. Trudy MKHTI no.47:61-68 '64. (MIRA 18:9)

TITOVA, Yu.V.

Annual quantity of precipitation in the Katun' River basin. Izv. Alt. otd. Geog. ob-va SSSR no.5:103 '65. (MIRA 18:12)

1. Sibirskiy nauchno-issledovatel'skiy institut energetiki.

KORNEYCHEVA, T.; TITOVA, Z.

Bank credit work under the new conditions. Den. i kred. 17 no.11:
40-46 N '59. (MIRA 12:12)
(Leningrad--Banks and banking) (Credit)

[illegible]

15-1957-7-9132

Translation from: Referativnyy zhurnal, Geologiya, 1956, Nr 7, p 44 (USSR)

AUTHOR: Titova, Z. A.

TITLE: New Data on the Terraces of the Central Altay (Novyye dannyye po terrasam Tsentral'nogo Altaya)

PERIODICAL: Tr. Tomskogo un-ta, 1956, vol 133, pp 204-208

ABSTRACT: In the valley of the Argut River, which flows through the central Altay on the northern border of the Samakhinskiy lowland, 8 terraces have been traced; their relative heights (in meters) are terrace I--2 to 3, II--6, III--10, IV--14 to 15, V--35, VI--60, VII--75 to 80, VIII--85 to 100; terrace V is erosional-aggragational, and the remainder are aggragational. A terminal moraine adjoins terrace VIII. On the right bank of the Argut River, where it enters the Samakhinskiy steppe, the deposits grade from moraine facies to terrace facies. The central part of the Samakhinskiy

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15-1957-7-9132

New Data on the Terraces of the Central Altay (Cont.)

steppe corresponds to the terrace 50-60 m high. Terraces of the Samakhinskiy steppe correlate well with those in the Chuya and Katun' Valleys. The increased height of the older terraces in Samakha is explained by more intense neotectonic activity in the region; they occur near the axis of the most actively rising structures in the central Altay. The terminal moraine is assigned to the maximum Würm phase because of the agreement in the amount of depression of the snow line, which the author computes at 1100-1150 m for the moraines at Samakha, with the amount of depression in the Chuyskiy Mountains and the Katunskiy Range, which correspond to the maximum Würm phase. The terrace 100 m high is associated with this phase, but all lower terraces are post-Würm.

Card 2/2

Ye. P. Pokrass

[illegible]

TITOV, Z. A.: "The geology of the upper quaternary deposits of the Argut valley (central Altay)." Tomsk State U imeni V. V. Kuybyshev. Tomsk, 1956. (Dissertation for the Degree of Candidate in Geologicomineralogical Sciences.)

So: Knizhnaya letopis' No 38, 1956 Moscow

TITOVA, Z.A.

Practice in using spore and pollen analysis in the central Altai.
Trudy TGU 147:51-56 '57. (MIRA 16:5)
(Altai Territory--Palebotany--Quaternary)

TITOVA, Z.A.

Age of glacial deposits in the upper Argut Valley, Altai Territory. Trudy TGU 147:40-50 '57. (MIRA 16:5)

(Argut Valley—Moraines)

TITOVA, Z.M.,
E.D. RANNAK, ZhFKh 18, 425-9 (1945)

ACCESSION NR: AT4042096 S/2768/63/000/007/0013/0017

AUTHOR: Titova, Z. M., Sharova, A. K.

TITLE: A study of the conditions of precipitation of niobium from mixed solutions of hydrofluoric and sulfuric acids.

SOURCE: AN SSSR. Ural'skiy filial. Institut khimii. Trudy*, no. 7, 1963. Khimiya i tekhnologiya redkikh metallov (Chemistry and technology of rare metals), 13-17

TOPIC TAGS: niobium, niobium oxide precipitation, silicofluoride method, niobium purification

ABSTRACT: The authors studied the conditions for the precipitation of Nb_2O_5 from the hydrofluoric and sulfuric acid solutions which result from the processing of pyrochlorine concentrates by the silicofluoride method, (concentrate: K2SiF6:KCl = 1:1.6: 0.4 at 750C for 1.5 hrs., followed by extraction with 1% HF and 5% H_2SO_4 and precipitation of most of the Ti as potassium fluorotitanate). Preliminary studies with ammonium hydroxide showed that complete precipitation of Nb is achieved only at pH 10. In subsequent studies, aqueous sodium hydroxide solution was slowly added to the sample at 70-80C, in amounts so calculated

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ACCESSION NR: AT4042096

as to leave a prescribed residual acidity in the sample. The niobium containing precipitate was separated by filtration, washed with water, dried and analyzed for Ti, Nb and Zr. The yield of precipitated Nb was found to increase with a reduction in residual acidity of the solution, reaching 97% for a residual acidity of 14.7 g/L H_2SO_4. An improved purification procedure for the niobium precipitate was also developed which requires less NaOH and yields a Nb_2O_5 containing 3.55% TiO_2, 0.08% ZrO_2, 1% or more Ca, up to 1% Al and Fe, and up to 0.01% Mg. Orig. art. has: 2 tables.

ASSOCIATION: Institut khimii, Ural'skiy filial AN SSSR (Chemical Institute, Ural Branch, AN SSSR)

SUBMITTED: 00

SUB CODE: IC

ENCL: 00

NO REF SOV: 009

OTHER: 006

Card 2/2